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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/696,512	10/29/2003	Sarel Aiber	IL920030036US1	6363
7590 Stephen C. Kaufman Intellectual Property Law Dept. IBM Corporation P.O. Box 218 Yorktown Heights, NY 10598				
EXAMINER TARAE, CATHERINE MICHELLE				
ART UNIT 3623		PAPER NUMBER		
MAIL DATE 06/23/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/696,512

Applicant(s)

AIBER ET AL.

Examiner

C. Michelle Tarae

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 17-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date 2/14/05
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The following is a Non-Final Office Action in response to the communication received on April 7, 2008.

Claims 1-38 are now pending in this application.

Claims 17-38 are withdrawn from further consideration.

Claims 1-16 have been elected and are examined below.

Election/Restrictions

2. Applicant's election without traverse of claims 1-16 in the reply filed on April 7, 2008 is acknowledged.

Claims 17-38 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 7, 2008.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-16 are rejected under 35 U.S.C. 101 based on Supreme Court precedent, and recent Federal Circuit decisions, the Office's guidance to examiners is that a § 101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*,

437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780,787-88 (1876).

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps. Thus, to qualify as a § 101 statutory process, the claim should positively recite the other statutory class (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state. Here, applicant's method steps, fail the first prong of the new Federal Circuit decision since they are not tied to another statutory class and can be preformed without the use of a particular apparatus. Thus, claims 1-16 are non-statutory since they may be preformed within the human mind.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 14, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-3, 5-13 and 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Agarwal et al. (U.S. 2004/0117224).

As per claim 1, Agarwal et al. discloses a computer implemented method' for optimizing an IT business infra-structure and business process parameters according to predetermined business objectives, the method comprising:

(a) obtaining as input business objectives (paragraphs 15, 34, 93; Figures 3-4; Services, or business objectives, via service level agreements are received.); and

(b) optimizing the IT business infrastructure and/or business level components associated with the IT business infrastructure according to said business objectives (paragraph 60; Services are monitored and optimized for efficiency.).

As per claim 2, Agarwal et al. discloses the method according to claim 1, further including:

(a) continuously monitoring the IT business infrastructure during run-time (paragraphs 34, 56, A monitoring module is used to monitor and collect service metrics.);

(b) determining whether a reference optimization of the IT business infrastructure and business level components needs updating and (c) if so, updating the reference optimization of the IT business infrastructure and business level components according to the business objectives (paragraphs 34, 40-41; Load balancing, or an update of resource allocation, is performed based on the monitoring of service performance.).

As per claim 3, Agarwal et al. discloses the method according to claim 1, wherein the business objectives include a service level agreement between a service provider that provides a service and a service consumer, regarding some service level (paragraphs 40-41).

As per claim 5, Agarwal et al. discloses the method according to claim 3, wherein the business objectives include a contract relating to an obligation by or to an owner or user of the IT business infrastructure (paragraph 88).

As per claim 6, Agarwal et al. discloses the method according to claim 1, wherein the business model includes a system user behavior model that models behavior of users of a business application running on the IT infrastructure (paragraph 87; Business relationships describing users and how they will interact with the services (i.e., their behaviors) are managed via user accounts.).

As per claim 7, Agarwal et al. discloses the method according to claim 1, wherein the system user behavior model takes into account parameters such as the number of users, the types of users, and the manner in which each user uses the system (paragraph 87; Business relationships describing users and how they will interact with the services (i.e., their behaviors) are managed via user accounts.).

As per claim 8, Agarwal et al. discloses the method according to claim 1, wherein the business model includes a system model that models hardware and software components of the IT infra-structure (paragraphs 48 and 94-98).

As per claim 9, Agarwal et al. discloses the method according to claim 8, wherein the system model takes into account:

hardware configuration of the IT infrastructure and software applications supported on the IT infrastructure, their behavior and resources required by each application (paragraphs 48 and 94-98); and

manner in which the users of the IT infrastructure use the systems supported thereby (paragraph 87; Business relationships describing users and how they will interact with the services (i.e., their behaviors) are managed via user accounts.).

As per claim 10, Agarwal et al. discloses the method according to claim 1, wherein the business model includes a business level model that allows the calculation of said IT metrics and is used to calculate the impacts of events at the IT level on the business objectives, as well as serving as inputs for computing an overall business metric, being a quantity that measures an overall alignment of the IT infrastructure with the business objectives (paragraphs 34, 36, 41, 43 and 55-56).

As per claim 11, Agarwal et al. discloses the method according to claim 1, wherein the business level model includes at least one from the group including: gains from commissions, explicit penalties paid to customers whenever service level guarantees are violated, customers deserting due to poor service, gaining new customers due to a good reputation, and losing customers due to poor reputation (paragraph 36).

As per claim 12, Agarwal et al. discloses the method according to claim 1, wherein the business model allows calculation of an overall business metric that can be used to quantify the alignment of the IT with the business objectives (paragraphs 34, 36, 41, 43 and 55-56).

As per claim 13, Agarwal et al. discloses the method according to claim 12, wherein the overall business metric is a total income generated by the IT infrastructure (paragraph 36).

Claims 15 and 16 recite similar limitations to those already rejected above in claim 1. Therefore, claims 15 and 16 are rejected on the same basis as claim 1 above.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agarwal et al. (U.S. 2004/0117224).

As per claim 4, Agarwal et al. discloses the method according to claim 3, wherein the service level agreement has a price paid by the service consumer to ensure the service level agreement (paragraphs 35-36, 87-88 and 93). However, Agarwal et al. does not expressly disclose a penalty paid by the service consumer whenever the agreement is violated. Examiner takes Official Notice that penalties in the form of fees are old and well known in the art of service agreements when the agreement is violated (i.e., a late fee when a payment is not paid on time, thereby violating the portion of the agreement that dictates when payments should be made by). Therefore, at the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Agarwal et al. to include a penalty paid by the service consumer whenever the agreement is violated as penalties usually hinder parties from violating an agreement, thereby enhancing the probability that the agreement will not be violated.

As per claim 14, Agarwal et al. discloses the method according to claim 2, wherein a need to update the reference optimization of the IT business infrastructure and business level components is determined by statistical tests (paragraph 113).

Agarwal et al. does not expressly disclose that the statistical tests are Chi-squared, when the measured business objectives are treated as an actual distribution, and the modeled business objectives are treated as an empirical distribution. Examiner takes Official Notice that the use of Chi-squared and actual and empirical distributions are old and well known in the art of statistical analyses. Therefore, at the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Agarwal et al. to use Chi-squared and actual and empirical distributions in its statistical analyses because such mechanisms help to determine "good fit" comparison tests, thereby enhancing the analysis to determine whether the business objectives are being met by the IT infrastructure and business level components.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Bowman-Amuah (U.S. 6,449,588) discusses a customer-driven QoS in a communication system;
- Myrick et al. (U.S. 7,162,427) discusses a system and method for modeling integrated business and IT frameworks;
- Graupner et al. (U.S. 7,054,934) discusses optimization using model descriptions of services and servers in a computing environment.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Michelle Tarae whose telephone number is 571-272-6727. The examiner can normally be reached Monday – Friday from 8:30am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Beth Van Doren, can be reached at 571-272-6737.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/C. Michelle Tarae/
Primary Examiner, Art Unit 3623

June 17, 2008